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EXAMINER

TORRES, MARCOS L

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) filed on 4-11-07 and 5-14-07 are being considered by the examiner.

Response to Arguments

2. Applicant's arguments, see page 11, filed 4-5-07, with respect to the 112 rejections have been fully considered and are persuasive. The 112 rejections of claims 21 and 36 have been withdrawn.
3. Applicant's arguments filed 4-5-07 have been fully considered but they are not persuasive.
4. Regarding applicant argument that Jonsson teaches away from "determining at the mobile terminal..." Jonsson discloses in col. 9, lines 1-8 that in the preferred embodiment the mobile services center and the BTS do the determination, however Jonsson also discloses that is not important who does the labor. Please see below more information about the new limitation.
5. Regarding applicant argument that Jonsson teaches away from "the mobile terminal switching reception from said first wireless transmitter to said second wireless transmitter (handoff)", because the mobile center is directing the handover effort; who is directing the handover effort is immaterial, the mobile terminal is going to switch reception from said first wireless transmitter to said second wireless transmitter autonomously or because is directed to do so. Otherwise, it cannot be called handover or handoff.

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6. As to applicant argument that Jonsson fails to teach switch reception between transmission burst (packets, hard handoff), it will be obvious to one of the ordinary skill in the art that changing from transmitter to another during the reception of the burst will jeopardize the data and would prefer to finish the reception of the burst and safely without the higher risk of losing data change to the reception to the other transmitter.

7. Regarding applicant argument that Chen fails to disclose the mobile terminal switching reception from said first wireless transmitter to said second wireless transmitter (handoff) between burst, because Chen is only concerned with soft handoff; please see col. 7, lines 63-67.

8. As to applicant argument that at col. 7, lines 20-48 (fig. 2) in Jonsson is talking about a receiver in a base station is misplaced, please see in col. 3, lines 1-2, col. 5, line 56 and col. 6, line 34 in Jonsson discloses that the items in col. 7, lines 20-48 are in a mobile station. Thereby, Jonsson does have a digital broadcast receiver.

9. Regarding applicant argument directed to the quasi-error-free value, it is noted that setting the desired error rate is within the knowledge of one of the ordinary skill in the art. This would be a design choice, if one of the ordinary skill in the art desire a 90% error free, he will set it to that value.

10. The rest of the arguments they fall together for the same reasons as shown above.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claim 24 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner could not find support in the specification for the limitation: "wherein each synchronized transmitter synchronously transmits a common signal".

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 1 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson (U.S. Patent 5,513,246) in view of Chen US 6731936 B2.

As to claim 1, Jonsson discloses a method comprising: receiving at a mobile

terminal a first signal broadcast by a first wireless transmitter at a frequency (see col. 7, lines 20-48); when said first signal meets a first predefined criterion (see col. 10, lines 3-10), deriving signal data from a second signal broadcast by a second wireless transmitter (see col. 10, lines 11-15); and determining that said signal data from said second wireless transmitter meets a second predefined criterion, switching reception from said first wireless transmitter to said second wireless transmitter after a first signal transmission burst has been received (see col. 10, line 3 - col. 11, line 45) and switching reception to said second wireless transmitter (see fig. 1e). Jonsson does not specifically disclose that the broadcast data is video, or that the handoff is between burst. In an analogous art, Chen discloses: receiving by the mobile station a first video broadcasting signal broadcast by a first wireless transmitter (see col. 6, lines 61-66), if said first signal meets a first predefined criterion (see col. 8, lines 8-13), determining at the mobile terminal that said data from a second wireless transmitter meets a second predefined criterion (see col. 8, lines 8-43; col. 12, lines 22-41; col. 13, line 46 - col. 14, line 5), the mobile station deriving video broadcasting signal data from a second video broadcasting signal by a second wireless transmitter (see col. 8, lines 28-32) and switching reception to said second wireless transmitter between bursts (see col. 8, lines 54-57; col. 7, lines 62-67); thereby allowing the transmission of digital video broadcasting. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add these teaching to the Jonsson method for maintaining the communication service as suggested by Jonsson in col. 1, lines 26-29 and Chen in col. 2, lines 44-47 and enhance the services (see col. 4, lines 35-41).

As to claims 6, Jonsson discloses a method wherein said first criterion is met if a receiver signal strength value for said first signal measured by the mobile terminal is less than a predetermined value (see col. 9, lines 9-20; col. 10, lines 3-55). Jonsson does not specifically disclose that the broadcast data is video. In an analogous art, Chen discloses wherein the broadcast data is video (see col. 6, lines 61-64), thereby allowing the transmission of digital video broadcasting. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Jonsson method for maintaining the data quality in a mobile multimedia device.

As to claims 7-8, Jonsson discloses a method wherein said first and second is met by been greater or smaller than a predetermined value (see col. 10, lines 3-55). Jonsson does not specifically disclose criterion is a bit error rate. Chen discloses were the criterion is a bit error rate and deriving it from the signal (see col. 8, line 10-13).

16. Claims 24-29, 31, 33-35 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson (U.S. Patent 5,513,246) in view of Chen US 6731936 B2 and further in view of Malek US 5822313A.

As to claim 24 and 33, Jonsson discloses a mobile terminal comprising: a digital broadcast receiver that receives digital broadcasting information for receiving information from a plurality of synchronized digital broadcasting wireless transmitters (see col. 2, lines 32-38), said digital broadcast receiver configured to receive at least a first portion of the information as a first transmission burst, said first transmission burst broadcast by a first digital broadcasting wireless transmitter (see col. 7, lines 20-48); a

processor coupled to the digital broadcast receiver (see col. 7, lines 54-57), switch reception by the digital broadcast receiver from the first digital broadcasting wireless transmitter to a second digital video broadcasting wireless transmitter (see col. 10, line 3 - col. 11, line 45). Jonsson does not specifically disclose the type of data, buffer configured to store said first transmission burst and going a handover after reception of said first transmission burst has been completed and before a consecutive transmission burst is sent by the synchronized first and second digital video broadcasting wireless transmitters. In an analogous art, Malek discloses a buffer configured to store said first transmission burst; a mobile station executing a handover after reception of said first transmission burst has been completed and before a consecutive transmission burst is sent by the synchronized first and second digital broadcasting wireless transmitters (see col. 6, lines 31-35; col. 3, lines 56-67; col. 4, lines 10-14). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Jonsson method for maintaining the data quality in a mobile multimedia device.

In an analogous art, Chen discloses wherein the broadcast data is video (see col. 6, lines 61-64) and transmit a synchronized common signal and common content (see col. 6, lines 65 - col. 7, line 50), thereby allowing the transmission of digital video broadcasting. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Jonsson method for maintaining the data quality in a mobile multimedia device.

As to claims 25 and 34-35, Jonsson discloses a method wherein said first and second is met by been greater or smaller than a predetermined value (see col. 10, lines 3-55). Chen discloses where the criterion is a bit error rate and deriving it from the signal (see col. 8, lines 10-14).

As to claims 26, Jonsson discloses a method wherein said first criterion is met if a receiver signal strength value for said first signal measured by the mobile terminal is less than a predetermined value (see col. 9, lines 9-20; col. 10, lines 3-55). Jonsson does not specifically disclose that the broadcast data is video. In an analogous art, Chen discloses wherein the broadcast data is video (see col. 6, lines 61-64), thereby allowing the transmission of digital video broadcasting.

As to claim 27, Jonsson discloses wherein the switching of said signal data from said second wireless transmitter meets a second predefined criterion, switching reception from said first wireless transmitter to said second wireless transmitter after a first signal transmission burst has been received (see col. 10, line 3 - col. 11, line 45). In an analogous art, Chen discloses wherein the broadcast data is video (see col. 6, lines 61-64), thereby allowing the transmission of digital video broadcasting.

As to claim 31, Jonsson discloses a digital broadcasting system comprising: a first digital broadcasting transmitter configured to broadcast information as a first plurality of consecutive transmission bursts (see col. 7, lines 20-48; col. 9, lines 45-53); a second digital video broadcasting transmitter configured to broadcast the information as a second plurality of consecutive transmission bursts in synchronization with the first plurality of consecutive transmission bursts (see col. 10, lines 11-15; col. 5, lines 40-49),

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and a receiver system configured to receive said information (see col. 5, line 56 – col. 6, line 1), said receiver further including a processor, and executable instructions executed by the processor (see col. 6, lines 15-24; 52-59 col. 8, lines 18-25), cause the processor to perform a hand-over from said first digital broadcasting transmitter to said second digital broadcasting transmitter upon receipt of a first transmission burst, if at least one predefined criterion has been met (see col. 10, line 3 - col. 11, line 45). Jonsson does not specifically disclose the video data, receiver system including a buffer configured to buffer said transmission bursts or handover prior to a consecutive transmission burst. In an analogous art, Chen discloses wherein the broadcast data is video (see col. 6, lines 61-64), thereby allowing the transmission of digital video broadcasting. In an analogous art, Malek discloses a buffer configured to store said first transmission burst; a mobile station executing a handover after reception of said first transmission burst has been completed and before a consecutive transmission burst is sent by the synchronized first and second digital broadcasting wireless transmitters (see col. 6, lines 31-35; col. 3, lines 56 67; col. 4, lines 10-14). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine both teachings for enhanced management of system resources.

As to claims 28 and 29, Malek discloses the mobile terminal wherein the executable instructions are further for converting said first transmission burst in a data stream (see col. 4, lines 9-25).

As to claim 41, Malek discloses wherein the pluralities of transmitters are synchronized (see col. 2, lines 49-53).

As to claim 42, Malek discloses method wherein said step of selecting said second wireless transmitter for receiving the information is performed after receipt of a signal transmission burst from said first wireless transmitter, and prior to receipt of a consecutive signal transmission burst from said second wireless transmitter (see col. 6, lines 31-35).

17. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson (U.S. Patent 5,513,246) in view of Chen US 6731936 B2 as applied to claim 1 above, and further in view of Ahopelto (U.S. Patent 5,970,059).

As to claim 3, Jonsson discloses everything claimed as explained above except for the step of stripping encapsulation from said first signal after receipt by the mobile station or the broadcast data is video. Ahopelto discloses the step of stripping encapsulation from said first signal after receipt by the mobile station (see col. 9, lines 28-30). In an analogous art, Chen discloses wherein the broadcast data is video (see col. 6, lines 61-64), thereby allowing the transmission of digital video broadcasting. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching for the simple purpose of using the data.

As to claim 4, OFFICIAL NOTICE IS TAKEN THAT the use of several synchronized transmitters is a common and well-known technique used in several wireless communication standards such as GSM and TDMA. Also, the EN 301192 is a common and well-known standard. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to use such standards in the Jonsson modified system for the simple reason of compatibility.

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As to claim 5, Jonsson discloses a method further comprising the step of sending said first signal to an application processor for conversion (see col. 5, line 40 - col. 8, line 24), to a data packet (see col. 6, lines 13-28). In an analogous art, Chen discloses wherein the broadcast data is video (see col. 6, lines 61-64), thereby allowing the transmission of digital video broadcasting. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine this teaching for improved network bandwidth management.

18. Claims 21, 23, 36-38 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Chen and further in view of Malek (U.S. Patent US005822313A).

As to claim 21, Jonsson discloses a method comprising: a mobile terminal for receiving a series of signals provided by each of plurality of wireless transmitters (see col. 9, lines 45-53), selecting a first wireless transmitter from a plurality of wireless transmitters for providing information (see col. 9, lines 1-20), each said wireless transmitter broadcasting; receiving signals broadcast by the first wireless transmitter (see col. 7, lines 20-48); deriving a first quality rate for information received from said first wireless transmitter; when said first quality rate for said first wireless transmitter is greater than a predefined quality value, deriving a second quality rate for a second synchronized wireless transmitter; and when said second quality rate is less than said quality value, selecting said second synchronized wireless transmitter for providing the information (see col. 10, line 3 - col. 11, line 45) and switching reception directly to said second wireless transmitter (see fig. 1e). Jonsson does not specifically disclose

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synchronized wireless transmitter, that the quality rate is a bit error rate or the BTS on different frequencies. In an analogous art, Chen discloses a mobile station selecting transmitters (see col. 8, lines 54-57; col. 12, lines 22-41; col. 13, line 46 - col. 14, line 5); the criterion is a bit error rate and deriving it from the signal (see col. 8, lines 10-13, 28-32). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine this teaching to maintain the quality of the communication. In an analogous art, Malek discloses using different frequencies for different base station (see col. 1, lines 58-63), thereby minimizing co-channel interference. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine this teaching with the Jonsson system for an even quality of communication.

As to claim 36, Jonsson discloses a method for receiving a series of signals provided by each of first and second wireless transmitters, said method comprising the steps of: receiving signals broadcast synchronously by the first and second wireless transmitters (see col. 2, lines 32-38; col. 5, line 45-49), selecting the first wireless transmitter for receiving information broadcast in consecutive transmission bursts, (see col. 9, lines 1-20), each said synchronized wireless transmitter broadcasting; receiving signals broadcast by the first wireless transmitter (see col. 7, lines 20-48); deriving a first quality rate for information received from said first wireless transmitter; if said first quality rate for said first wireless transmitter is greater than a predefined quality value, deriving a second quality rate for a second wireless transmitter; and if said second quality rate is less than said quality value, selecting said second wireless transmitter for

providing the information (see col. 10, line 3 - col. 11, line 45) and switching reception directly to said second wireless transmitter (see fig. 1e). Jonsson does not specifically disclose that the quality rate is a bit error rate or the BTS on different frequencies. However, Jonsson discloses that he is using TDMA a system that uses synchronized wireless transmitter. In an analogous art, Chen discloses a mobile station selecting transmitters (see col. 8, lines 54-57; col. 12, lines 22-41; col. 13, line 46 - col. 14, line 5) and where the criterion is a bit error rate and deriving it from the signal (see col. 8, lines 10-13, 28-32), thereby permitting a soft handover. In an analogous art, Malek discloses using different frequencies for different base station (see col. 1, lines 58-63), thereby minimizing co-channel interference. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine this teaching with the Jonsson system for an even quality of communication.

As to claims 23 and 38, Jonsson discloses a method wherein said first criterion is met if a receiver signal strength value for said first signal measured by the mobile terminal is less than a predetermined value (see col. 9, lines 9-20; col. 10, lines 3-55).

As to claim 37, Malek discloses method wherein said step of selecting said second wireless transmitter for receiving the information is performed after receipt of a signal transmission burst from said first wireless transmitter, and prior to receipt of a consecutive signal transmission burst from said second wireless transmitter (see col. 6, lines 31-35).

As to claim 45, Malek discloses wherein the pluralities of transmitters are synchronized (see col. 2, lines 49-53).

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19. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Chen and Malek as applied to claim 21 above, and further in view of Taketsugu (U.S. Patent US005420863A).

As to claim 22, Jonsson discloses everything claimed as explained above except for selecting a wireless transmitter between transmissions burst. In an analogous art, Taketsugu discloses selecting a wireless transmitter between transmissions burst (see col. 6, lines 41-56), thereby allowing a smooth transition between transmitters without loosing or having to retransmit data. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine both teachings for enhanced management of system resources.

20. Claims 9-14, 16, 18-20 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Chen and further in view of Makinen (U.S. Patent 5,764,700).

As to claims 9, 12-14 and 16, Jonsson discloses a mobile terminal comprising: a digital broadcast receiver suitable for receiving digital broadcasting information from a plurality of wireless transmitters, wherein the digital broadcasting receiver is configured to receive at least a first portion of the information as a first transmission burst, said first transmission burst broadcast by a first wireless transmitter; and means for switching reception from the first wireless transmitter to a second wireless transmitter after reception of said first transmission burst has been completed (see col. 5, line 40 - col. 11, line 42) and switching reception directly to said second wireless transmitter (see fig. 1e). Jonsson does not specifically disclose an elastic buffer in the receiver. In an

analogous art, Chen discloses wherein the information is a digital video broadcasting (see abstract), thereby providing enhanced services. In another analogous art, Makinen discloses an elastic buffer in the receiver (see col. 2, line 59 - col. 3, line 14). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Jonsson apparatus for a reliable reception of data even if the timing are not precise.

Regarding claim 11, Jonsson discloses the mobile terminal further comprising means for deriving a received signal strength indicator value for said first transmission burst (see col. 10, lines 30-38).

As to claim 18, Jonsson discloses a method wherein said first criterion is met if a receiver signal strength value for said first signal measured by the mobile terminal is less than a predetermined value (see col. 9, lines 9-20; col. 10, lines 3-55).

As to claims 10 and 19-20, Jonsson discloses a method wherein said first and second is met by been greater or smaller than a predetermined value (see col. 10, lines 3-55). Jonsson does not specifically disclose criterion is a bit error rate. Chen discloses were the criterion is a bit error rate and deriving it from the signal (see col. 8, lines 10-14).

As to claim 39, Jonsson discloses wherein the receiver system comprises a mobile terminal (see col. 1, lines 5-8).

21. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Chen and Makinen as applied to claim 16 above, and further in view of Doshi (U.S. Patent 5,936,965).

As to claim 17, Jonsson discloses a transmitter and encapsulating a transmission burst as mentioned above. Doshi discloses a transmitter using more than one protocol (see abstract). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for compatibility purposes.

22. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Chen US 6731936 B2 and further in view of Malek as applied to claim 31 above, and further in view of Doshi (U.S. Patent 5,936,965).

As to claim 32, Jonsson discloses a transmitter and encapsulating a transmission burst as mentioned above. Doshi discloses a transmitter using more than one protocol (see abstract). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for compatibility purposes.

23. Claims 40 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Chen further in view of Makinen as applied to claims 9 and 16 above, and further in view of Malek.

As to claim 40, Jonsson discloses the digital broadcasting system everything claimed as explained above except for wherein executing a hand-over from said first transmitter to said at least one other transmitter upon receipt of said transmission burst comprises completing the hand-over prior to a consecutive transmission burst transmitted by the synchronized first and other transmitters. In an analogous art, Malek discloses wherein executing a hand-over from said first transmitter to said at least one other transmitter upon receipt of said transmission burst comprises completing the

hand-over prior to a consecutive transmission burst transmitted by the synchronized first and other transmitters (see col. 6, lines 31-35; col. 3, lines 56-67; col. 4, lines 10-14).

As to claim 44, Malek discloses method wherein said step of selecting said second wireless transmitter for receiving the information is performed after receipt of a signal transmission burst from said first wireless transmitter, and prior to receipt of a consecutive signal transmission burst from said second wireless transmitter (see col. 6, lines 31-35).

24. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Chen and Makinen as applied to claim 14 above, and further in view of Lim (U.S. Patent US006766168B1).

As to claim 15, Jonsson discloses everything claimed as explained above except for the mobile terminal wherein said stream filter comprises an Internet Protocol (IP) filter. In an analogous art, Lim discloses a mobile terminal wherein said stream filter comprises an Internet Protocol (IP) filter (see col. 4, lines 23-39), thereby allowing the use of the Internet in the mobile device. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for enhanced features for the user.

25. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson (U.S. Patent 5,513,246) in view of Chen US 6731936 B2 and further in view of Malek (U.S. Patent US005822313A) as applied to claim 24 above, and further in view of Lim (U.S. Patent US006766168B1).

As to claim 30, Jonsson discloses everything claimed as explained above except for the mobile terminal wherein said stream filter comprises an Internet Protocol (IP) filter. Lim discloses a mobile terminal wherein said stream filter comprises an Internet Protocol (IP) filter (see col. 4, lines 23-39), thereby allowing the use of the Internet in the mobile device. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for enhanced features for the user.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcos L. Torres whose telephone number is 571-272-7926. The examiner can normally be reached on 8:00am-6:00 PM alt. Wednesday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-252-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Marcos L Torres
Examiner
Art Unit 2617


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